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Director
Aerospace Studies Inst
Attn: Archives Branch
Maxwell AFB, Alabama

TO:

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SAMOS

3 0 OCT 1989

Preliminary Operations Plan

24 February 1960

EXEMPTED FROM 25 MAR 1996
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REVIEW DATE________ REVIEWER 61
REFER TO ________________
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30 OCT 1989

Suspense N.L.T. 24 Mar, 1200hrs
to Steffy — comments.

REVIEW OCT 31 Dec 2010

UNITED STATES AIR FORCE

PRELIMINARY OPERATIONS PLAN

FOR THE

SATELLITE RECONNAISSANCE SYSTEM

SAMOS

24 February 1960

DOWNGRADED AT 12 YEAR
INTERVALS; NOT AUTOMATICALLY
DECLASSIFIED. DOD DIR 5200.10

APPROVED:

R.M. Montgomery

R. M. MONTGOMERY
Major General, U. S. Air Force
Assistant Vice Chief of Staff

CY NO. 0018

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SECTION I. STATEMENT OF THE PROBLEM

PROBLEM: To provide an operational plan for the employment of the satellite reconnaissance system (SAMOS) in response to the directives of the Secretary of Defense on 18 September and 17 November 1959.

Appendix I to Section I. Memorandum by the Secretary of Defense for the Chairman, Joint Chiefs of Staff, dated 18 September 1959 (C).

Appendix 2 to Section I. Letter from Secretary of Defense to Secretary of the Air Force, subject: Transfer of the SAMOS Development Program to the Department of the Air Force, dated 17 November 1959 (S).

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COPY
THE SECRETARY OF DEFENSE
Washington

Sep 18, 1959

MEMORANDUM FOR: The Chairman, Joint Chiefs of Staff

SUBJECT: Coordination of Satellite and Space Vehicle Operations

The views of the Joint Chiefs of Staff regarding the coordination of satellite and space vehicle operations as contained in Joint Chiefs of Staff memorandum 283-59 dated 24 July 1959 have been considered. This subject was also discussed with the members of the Joint Chiefs of Staff and the Director of Defense Research and Engineering on 13 August 1959 and 3 September 1959.

The Director of Defense Research and Engineering considers that the numbers of satellite vehicles to be launched and the numbers of satellites expected to be in orbit in any one period over the next several years will not be large. Nevertheless, the advent of military satellite and space vehicle systems has national security implications which emphasize the need for over-all control and coordination of the military activity pertaining thereto.

The establishment of a joint military organization with control over operational space systems does not appear desirable at this time. The utilization of the present organization of the Military Departments appears preferable in order to realize full advantage from existing support capabilities, to eliminate conflicting research and development interests and responsibility, and to simplify fiscal accounting.

Although the research and development leading to the demonstration of operational feasibility will continue to be the responsibility of the Advanced Research Projects Agency for the time being, it appears desirable at this time to begin the development of a plan for the orderly transfer of space projects to the appropriate military departments. This transfer will normally be made during the development phase at an appropriate time to be determined by the Secretary of Defense.

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Satellite and space vehicle operations will be assigned to the appropriate military department after consideration of the primary interest or special competence of the respective service. Where no one military department has primary interest or special competence, consideration will be given to special competency in associated fields of development.

The responsibility for the development, production and launching of space boosters and the necessary systems integration incident thereto, as approved by the Secretary of Defense, will be assigned to the Department of the Air Force except for such research and development as may be conducted by ARPA.

The specific assignment of the payload for space and satellite systems will be assigned separately to the appropriate military department which, in addition to budgeting for the payload, will also budget and reimburse the Department of the Air Force for the necessary boosters, launching vehicles and other unique equipment required in launching and necessary systems integration.

The following specific assignments for payload development and payload research and development support and production improvement are approved:

(a) Interim satellite early warning system -- Air Force.

(b) Phase I of satellite reconnaissance system -- Air Force.

(c) Interim satellite navigation system -- Navy.

(d) Interim satellite communication system -- Army.

The date of transfer of the above-listed systems from the Advanced Research Projects Agency will be approved by the Secretary of Defense upon the recommendation of the Director of Defense Research and Engineering. Assignment of other systems that may be developed will be determined later.

Prior to assuming responsibility for a particular satellite and space vehicle program, the appropriate military department will submit to the Secretary of Defense for approval detailed plans for the system including user relationships with the Unified and Specified Commands and other appropriate agencies. The Secretary of Defense will refer such plans to the Joint Chiefs of Staff for Comment and recommendation.

The Director of Defense Research and Engineering will review and approve the detailed research development program in the space and satellite field utilizing where appropriate the support of the Advanced Research Projects Agency in order to insure the most efficient and effective utilization of the Department of Defense resources in this field. Particular attention should be given to the desirability of incorporating, where practicable, more than one payload or system in a particular satellite.

/s/ NEIL H. McELROY

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THE SECRETARY OF DEFENSE
Washington

17 Nov 59

MEMORANDUM FOR THE SECRETARY OF THE AIR FORCE

SUBJECT: Transfer of the SAMOS Development Program to the Department of the Air Force

Reference: Memo for SecDef from SecAir, 6 Nov '59, subject as above.

In accordance with the request contained in the referenced memorandum, transfer of program responsibility for SAMOS from the Advanced Research Projects Agency to the Department of the Air Force is approved effective immediately.

It is understood that the program will be conducted essentially in accordance with current ARPA plans pending approval of an Air Force development plan to be submitted to the Director of Defense Research and Engineering by 15 January 1960. It is requested that the revised development plan emphasize physical recovery and provide the initial launch of a recoverable payload well in advance of the present schedule (early FY '62). It is further requested that additional steps beyond the current ARPA development plan toward the achievement of other objectives in the SAMOS program and that steps beyond the research and development phase be held in abeyance pending specific approval from my office.

It is also understood that the Air Force will submit to me by 15 January 1960, in accordance with the referenced memorandum, an operational plan for the SAMOS system including details of user relationships.

Separate action will be taken by ASD(Compt) to arrange for the necessary adjustments in the appropriate FY '60 and FY '61 funds.

/Signed/ GATES
Deputy

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SECTION II - GENERAL CONCEPT

EMPLOYMENT AND EXPLOITATION

SAMOS

1. Timing:

This plan addresses itself to the point in time when an operational capability is obtained in the form of a proven weapons system.

2. Purpose:

The purpose of the SAMOS Satellite Reconnaissance System is to perform photographic and electronic reconnaissance through the use of satellites to obtain intelligence information from areas of interest on earth. The system will be composed of those elements necessary to collect, process, interpret and disseminate intelligence information. When used with information obtained from other sources it should assist in satisfying the desire of the U. S. Intelligence Board for:

(1) Avoidance of surprise.

(2) Support of national security policy.

(3) Support of the war plans of Unified and Specified commands.

3. Description of General Concept:

a. The SAMOS system will include payload, Agena vehicle, the modified ICBM booster, launch facilities, tracking and read-out facilities, data processing facilities, communications net-work, technical and operational control facilities, and necessary personnel. The SAMOS

[redacted]

payloads are to be employed for the sensing of visual and electronic images.

b. The SAMOS system will orbit at an altitude of approximately 300 miles. The visual (photographic) results are transmitted by data link in one configuration, and the payload film will be physically recovered for ground processing in another. In the first configuration, equipment in the payload processes the photographic film. When the vehicle is within range of a tracking and acquisition station and upon receipt of the appropriate command, the film is converted to electrical data and transmitted via data link. The data will then be reconstituted to photographic images suitable for interpretation. This method is to provide a photographic resolution of 20 feet. In the ferret version, the electronic reconnaissance sensors search the electromagnetic spectrum, sense and record intercepted signals, and store the information until commanded to transmit the data to a tracking and acquisition station. In the case of the recoverable payload, the vehicle will receive re-entry commands from a designated instrumentation station. After air or surface pick-up, the payload will be delivered to a data processing facility. The recovery system is designed to provide a photographic resolution of 5 feet. Each satellite in the SAMOS system is capable of delivering an intelligence product suitable for processing and evaluating.

SECTION III. ORGANIZATION, COMMAND AND SUPPORT RELATIONSHIPS

1. ORGANIZATIONAL ASSIGNMENT.

The Satellite Reconnaissance System (SAMOS) is assigned to the Strategic Air Command, a major command of the Department of the Air Force under the Department of Defense. (See Appendix I)

2. OPERATIONAL COMMAND CHANNELS.

Operational command of the Satellite Reconnaissance System (SAMOS) is exercised by the Commander-in-Chief, Strategic Air Command under the strategic direction of the Joint Chiefs of Staff. The chain of operational command of the system extends from the President, through the Secretary of Defense, the Joint Chiefs of Staff, and CINCSAC to the Commander, SAMOS Wing. (See Appendix II)

3. DEPARTMENTAL SUPPORT RELATIONSHIPS.

a. The Satellite Reconnaissance System (SAMOS) is assigned to the Department of the Air Force. The Department is responsible for the organization, equipping and training of units and personnel of the SAMOS System. The Department of the Air Force is also responsible for the administrative and logistic support of the system, its units and personnel.

b. Having been assigned system development responsibility by the Secretary of Defense on 17 November 1959, the Department of the Air Force is also responsible for system improvement through follow-on development and/or system modification. The above responsibilities are carried out through the relationships shown at Appendix III.

4. **SUPPORT PROVIDED BY SAMOS WING TO OTHER UNITS.**

a. The Strategic Air Command has been assigned certain responsibilities by the Department of the Air Force for the support of the Missile Defense Alarm System (MIDAS), a system assigned to the Air Defense Command, Department of the Air Force, and under the operational control of Commander-in-Chief, North American Air Defense Command.

b. In the interests of more efficient and economical use of high cost equipment and scarce resources, these support functions are performed for the MIDAS System by use of resources already available in connection with the operational employment and control of the SAMOS System.

c. Support arrangements set forth will not impair command relationships necessary for the decisive use of either system by the operational commands.

d. The SAMOS System will perform the following supporting functions for the MIDAS System:

(1) Launch and orbit injection of MIDAS satellites - SAC SAMOS Launch Squadron.

(2) Tracking and acquisition of MIDAS satellites - by Tracking and Acquisition Stations of SAC SAMOS Instrumentation Squadrons.

[redacted]

(3) Transmission of operating instructions of MIDAS Operations Center (MOC) through the SAC Tracking and Acquisition Stations to the MIDAS satellites - SAC SAMOS Technical Operations Control Center (TOCC).

(4) Correlation of digital-coordinate alarm readout data (received from MIDAS Readout Station) with geographical position of MIDAS satellite at time of alarm - computers of the SAC SAMOS Data Processing Squadron.

(5) Housing of the MIDAS Operations Center (MOC) which is located in the SAC SAMOS TOCC - SAC SAMOS Wing TOCC.

(6) Backup readout capability from MIDAS satellites - SAC SAMOS Tracking and Acquisition Stations.

(See Appendix IV)

5. SUPPORT RECEIVED FROM ADC MIDAS WING.

a. Backup control capability for SAMOS satellites - ADC MIDAS Readout Stations.

b. Assistance for SAC SAMOS TOCC in scheduling launches to meet priority requirements among SAMOS and MIDAS launches - ADC MOC.

(See Appendix IV)

ORGANIZATIONAL ASSIGNMENT
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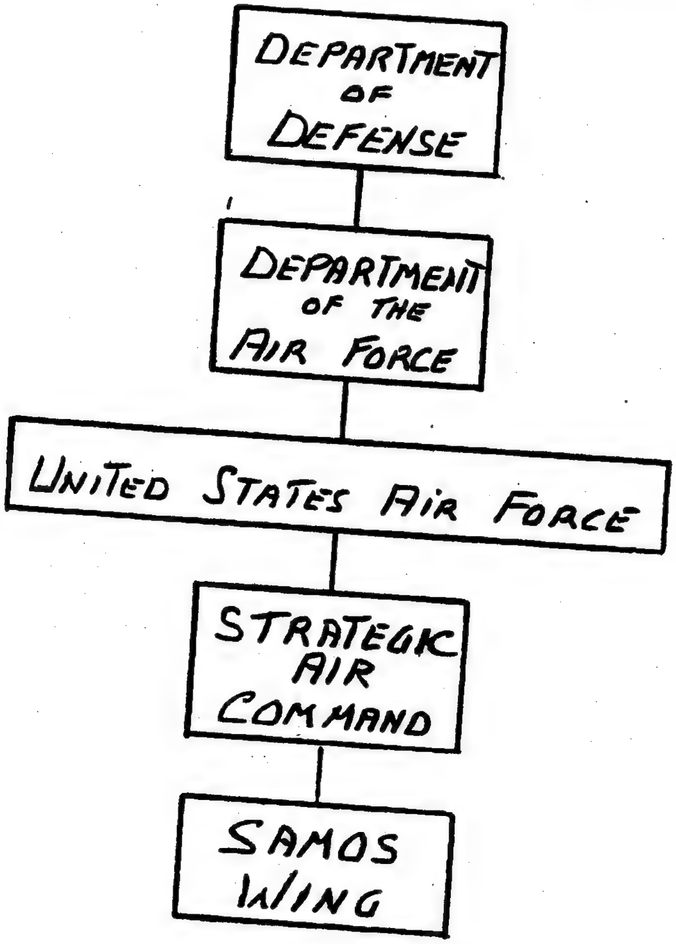
SAMOS SYSTEM



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OPERATIONAL COMMAND
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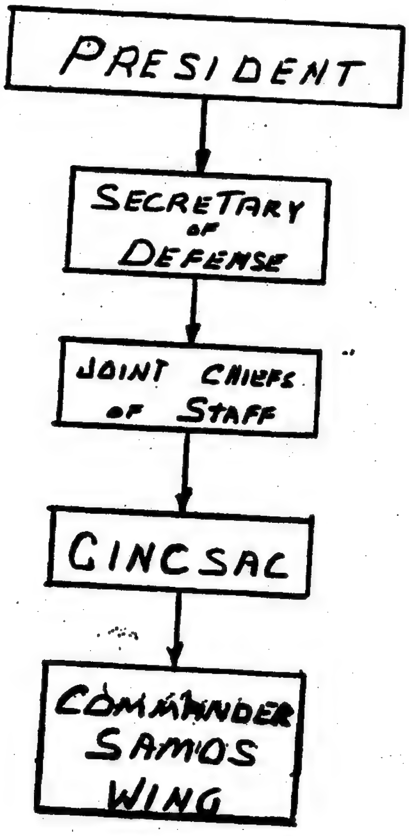

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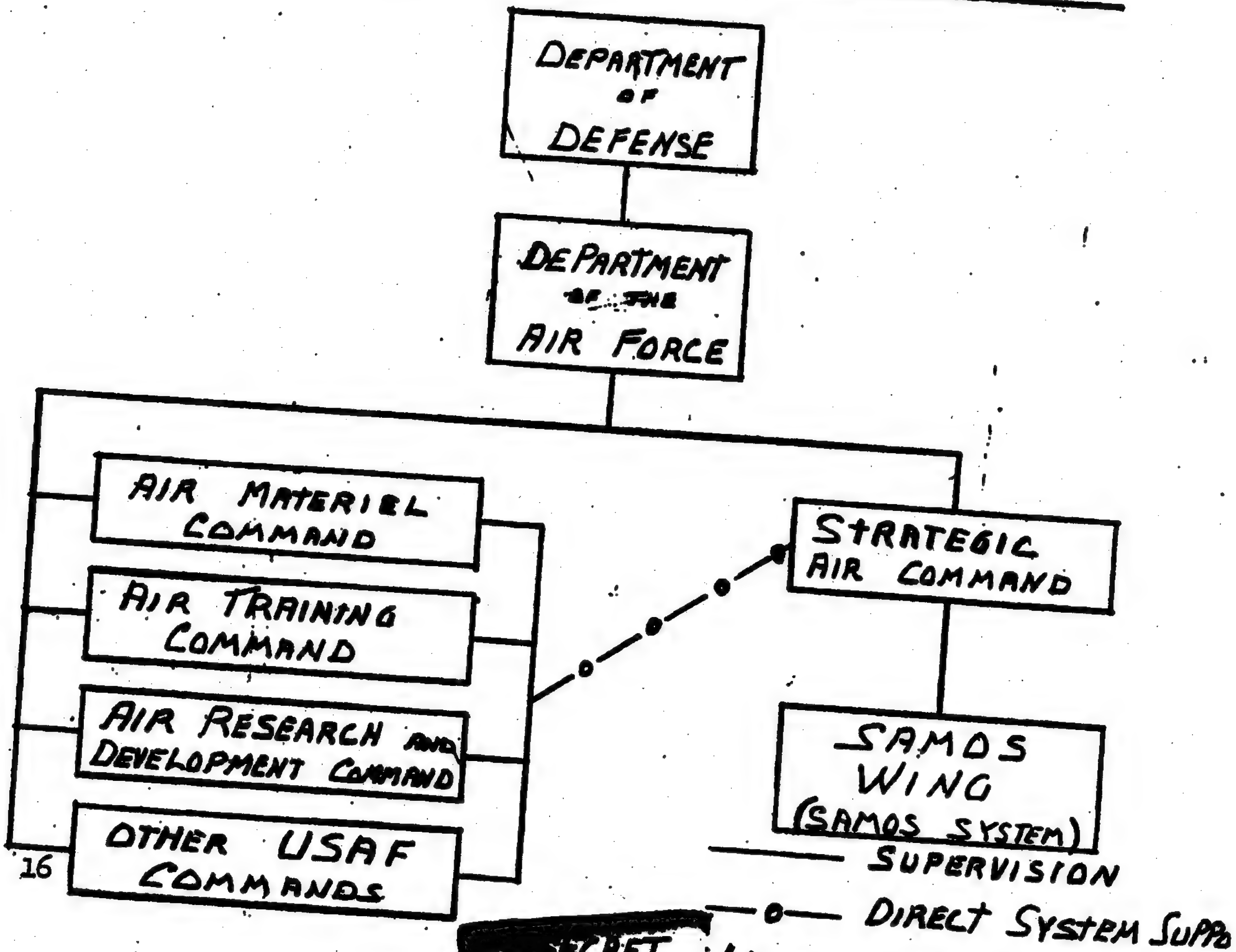
RELATIONSHIPS FOR THE EXECUTION OF DEPARTMENTAL SUPPORT RESPONSIBILITIES FOR THE SATELLITE RECONNAISSANCE SYSTEM (SAMOS)



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APPENDIX IV

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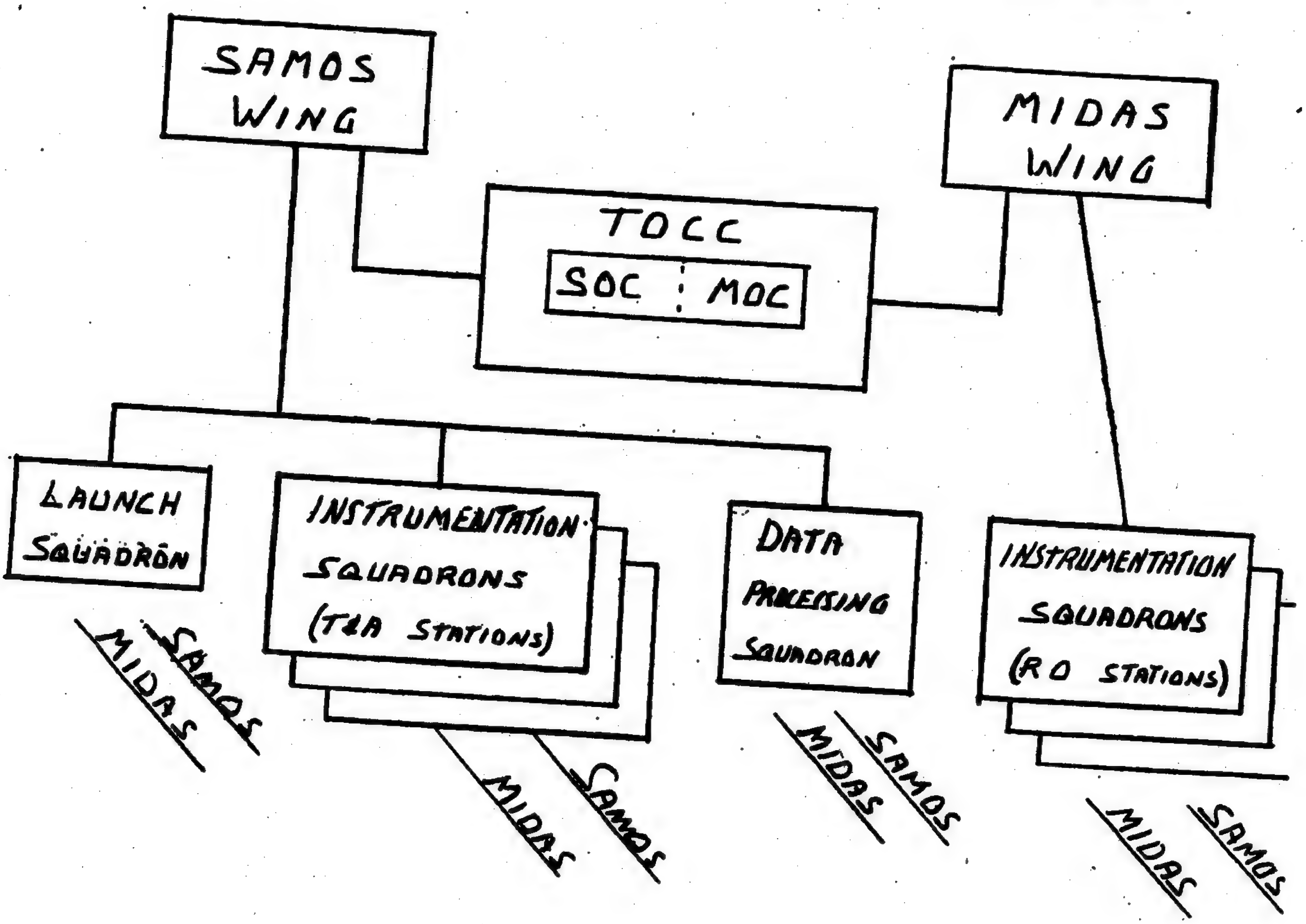
SAMOS AND MIDAS

MUTUAL SUPPORT RELATIONSHIPS



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SECTION IV. OPERATIONS

1. Operational Functions by organization. (Appendix I)

a. The SAMOS Wing Headquarters will, in addition to its normal command functions, operate the Technical Operations Control Center as an integral function of the Wing Operations Section. The wing commander will be responsible to CINCSAC for the overall performance of the SAMOS reconnaissance system. The TOCC will plan, schedule and direct the execution of all mission tasks, monitor the performance of subordinate units, and evaluate the effort and results.

b. The Launch Squadron will be responsible for accomplishing actions necessary to receive, inspect, checkout, launch, guide and inject the satellite vehicles into orbit. It will be responsible for assembly, inspection, pre-flight and maintenance of all boosters and payloads. SAC will operate this squadron in the Vandenberg AFB/Pt Arguello area.

c. ZI Instrumentation Squadrons are needed to provide necessary communication links with the orbiting satellites. Each will acquire, track and receive reconnaissance data from satellites for transmission to the Technical Operations Control Center (TOCC) which will direct the Tracking and Acquisition components in control of SAMOS satellites.

d. The Data Processing Squadron will be responsible for compiling, processing and reproduction of intelligence data received from the reconnaissance subsystems and for distribution to the using agencies.

e. The Recovery and Control Group will exercise operational control over the Test and Instrumentation Squadron in Hawaii. This Group will be responsible for vehicle tracking and payload retrieval of the recovery version of the SAMOS System.

2. Technical Functions:

For the detailed description of design objectives and technical components refer to the System Development Plan.

3. System Capability:

The operational SAMOS system will be capable of providing raw and processed photographic and electronic reconnaissance data which, when correlated with the intelligence from all available sources, may be used to:

a. Acquire indications of adverse enemy deployment of its missile or long range bomber forces.

b. Acquire indications of land forces movements, troop and logistic concentrations and other significant preparations for land forces campaigns.

c. Acquire indications of naval deployments, shipping concentrations, unusual naval base activities and other significant preparations for naval campaigns.

d. Acquire indications of Soviet satellite and space vehicle activities for military or scientific purposes.

e. Acquire indications of Soviet attempts to circumvent agreements on disarmament, nuclear testing, and other matters of security significance.

f. Produce and revise target information and graphics, navigation materials and estimates of strike forces.

g. Develop effective penetration tactics and electronic countermeasures.

h. Estimate foreign military economic capability or potential.

i. Analyze technical characteristics of foreign equipment and components.

j. Establish and revise the requirements for U. S. weapon systems.

4. Operational Process of Producing Reconnaissance Information:

a. General Process. The SAMOS System will obtain electronic (ferret) reconnaissance and photographic (visual) reconnaissance of selected areas of the earth, based on the stated objectives of complete coverage of priority target areas. The reconnaissance is achieved by command programming of the sensors over the areas of interest.

b. The Recovery Process. In this version the exposed photographic film is stored in the vehicle. Upon completion of the mission, the vehicle is commanded or programmed to leave the orbit and eject the payload so as to descend in the recovery area. Recovery will be made in the air by suitably equipped aircraft, or failing this, be retrieved from the surface by ship. The exposed film will then be delivered to the data processing facility for processing.

c. The Photographic Readout Process. In this version, the exposed film is processed and stored in the payload while in orbit. Upon command, the information is converted to electrical data and transmitted to one of the tracking and acquisition stations and relayed by data link to the data processing facility where it is converted back to photographic form. The system will initially employ conventional photographic techniques with automatic film processing and television-type readout. Later equipment will utilize electronic sensors and high resolution television in conjunction with tape storage.

d. The Electronic Reconnaissance (Ferret) Process. This version will collect intelligence information from the electromagnetic spectrum. The information will be stored in the vehicle until commanded from the ground (T&A Station) to transmit the information to the ground based readout equipment and relayed by data link to the data processing facility.

e. The Data Links connecting the Tracking and Acquisition Stations with the Technical Operations Control Center and data processing facility will be leased commercial lines. Other intersite or interstation needs will be furnished by the same method.

Appendix 1 to Section IV - Wing Functions

Appendix 2 to Section IV - Reconnaissance

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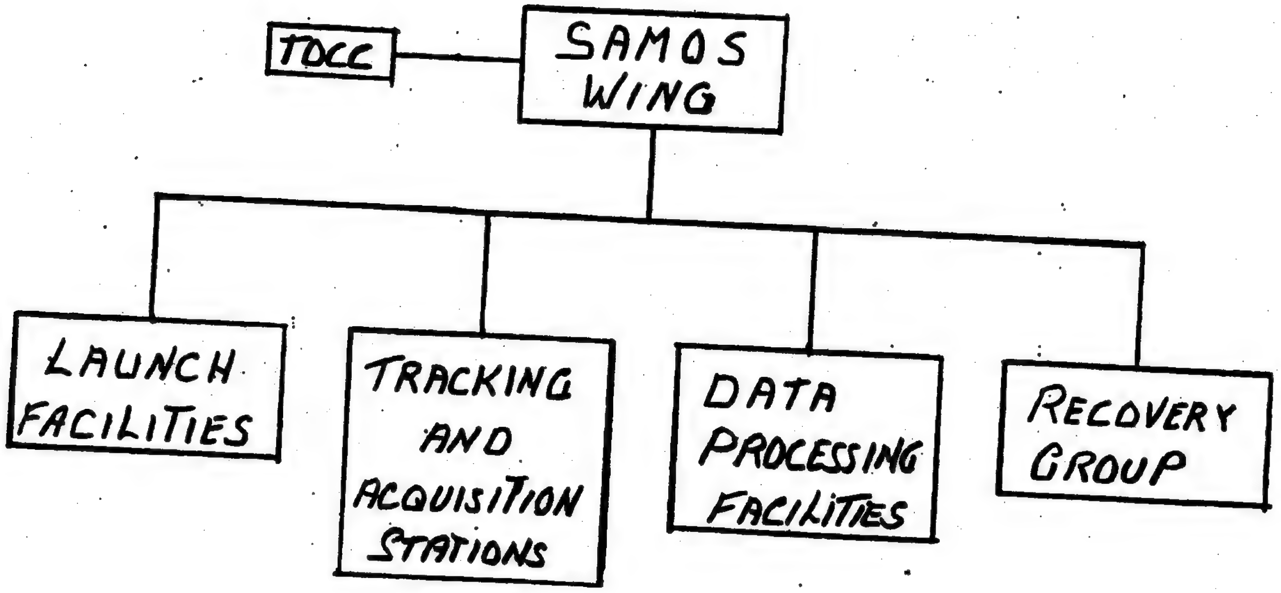
WING FUNCTIONS
SAMOS



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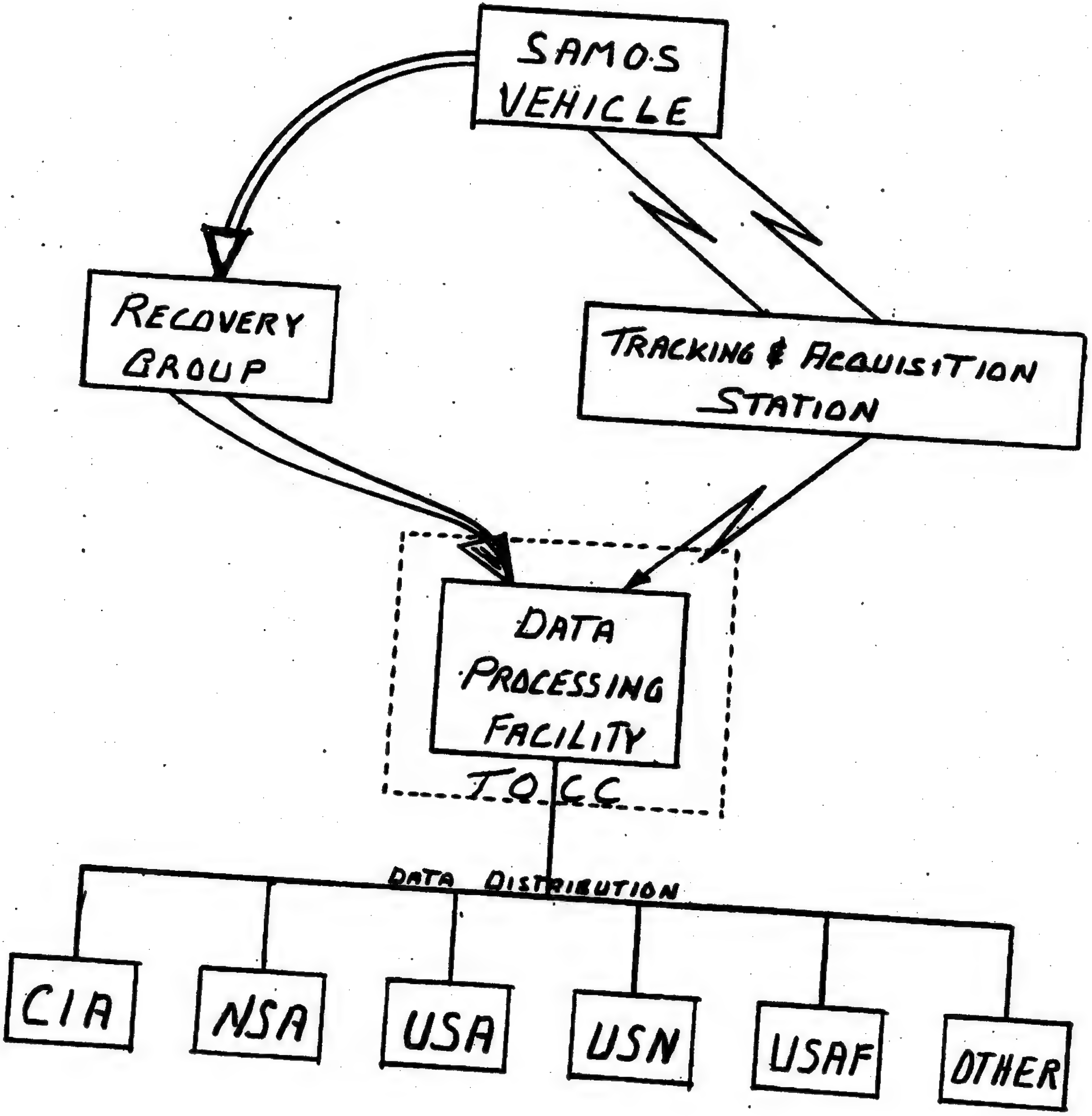
RECONNAISSANCE



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SECTION V - USER RELATIONSHIPS

1. Correlation of National Intelligence Objectives - Requirements and Processing.

a. Direct Support of Military Forces. The capabilities of the Satellite Reconnaissance System, SAMOS, will be employed on a priority basis, through normal command channels to satisfy urgent and unanticipated requirements where time is a principle factor in the value of the intelligence to be obtained. The conditions and situations requiring direct support will justify the requested priority. The Army, Navy, Air Force and the Unified and Specified Commands will express their specific requirement to the Joint Chiefs of Staff. The JCS will take action to establish the request on the SAMOS priority list and direct accomplishment by the Operating Command. (See Appendix I).

b. Normal support of the National Intelligence Community. The effectiveness of this system will rely on the capability of the intelligence community to exploit the products received. The intelligence requirements for State Department, Central Intelligence Agency, National Security Agency, JCS, Army, Navy, Air Force, and others have been coordinated and validated by the United States Intelligence Board (USIB) and provide a basis for system operation and product exploitation. The instrument to accomplish the detailed tasks of coordination and validation of user requirements is the Satellite Intelligence Requirements Committee (SIRC) of the USIB. In accordance with the provisions contained in the SIRC terms of reference:

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"The Committee will concern itself with satellite intelligence requirements involving certain problems specifically referred to it by the USIB or members. In dealing with satellite intelligence requirements problems, the Committee is charged with the following responsibilities:

(1) Develop a plan for compiling, establishing priorities, and coordinating satellite intelligence collection requirements.

(2) Establish procedures and plans to investigate, study and make recommendations to appropriate authority on questions pertaining to satellite intelligence collection requirements.

(3) Provide guidance for dissemination of intelligence derived from U. S. satellite vehicles to meet the varied needs of user agencies, departments and commands."

The SIRC is currently engaged in developing plans to insure that all user requirements will be considered. After SIRC concurrence, the plan will be submitted to the USIB for final approval and implementation. Current membership of the SIRC includes OSD, CIA, NSA, State, JCS, Army, Navy, and Air Force, with other USIB Agencies participating as desired. During initial phase of operations, distribution of SAMOS photography to user agencies will be on 9½" roll film covering priority requirements. ELINT data will be processed and disseminated in a format suitable to all consumers. Changes in format and quantity can be made readily.

c. Mission and task assignments established by JCS directives provide the basis for SAMOS exploitation to satisfy the following four basic missions:

(1) Operational support.

(2) Intelligence base development and maintenance.

(3) Technical intelligence development and exploitation.

(4) Graphics development and production.

d. As an extension of the initial distribution of the visual and ELINT formats, evaluated data will be exchanged on a continuing basis through the mechanics of existing procedures.

e. Security Classification: Security procedures will be in accordance with AFR 205-1 (reflects national security procedures). Additionally, the security classification of SAMOS derived data will be based on the format of the data, content and security policy in existence at the time the data is obtained. The data will be handled in limited access areas.

2. Air Force Tasks to Support Achievement of National Intelligence Objectives With Products of SAMOS Reconnaissance.

a. General:

(1) A capability of personnel, equipment, facilities, and knowledge has been developed by the Air Force for the general support of the national mission to perform and exploit aerial reconnaissance. The present capability consists of a series of units and agencies which have been organized and integrated into an intelligence community which specializes in the exploitation and use of aerial reconnaissance information.

(2) The Air Force Intelligence Community has an overall objective. Each element is assigned a separate mission which is, in turn, integrated to satisfy Air Force responsibility to the National Intelligence

Community. Each member of the community has a capability to accomplish its assigned mission.

(3) Strategic Air Command is the command operating the SAMOS System. As the operator, however, SAC has no pre-emptive rights to the intelligence produced by the SAMOS System. Since the SAMOS System is operated as a national asset, its product will be distributed in accordance with priorities established by the Joint Chiefs of Staff and the United States Intelligence Board. Accordingly, SAC will establish its requirements and priorities by the same procedures established for all Unified and Specified Commands.

b. Tasks of Elements:

(1) Strategic Air Command (SAC) will:

(a) Process SAMOS electromagnetic and photographic data (primary record) into acceptable formats for dissemination to the using organizations.

(b) Perform SAMOS data evaluation and produce the following types of reports to indicate degree of satisfaction of user needs:

1. Track coverage reports.
2. Flash Reports.
3. Immediate Reports.

(c) Disseminate these reports in accordance with Joint Regulations, AFR 200-6/SR 380-305-10/NAVAER 10-35-568 and special Assistant Chief of Staff/Intelligence Instructions.

(d) Receive photographic and ferret data from the Data Processing Squadron.

(e) Exploit SAMOS data to provide the intelligence products required to support the operational needs of its strike force by:

1. Production and revision of target information, graphics and estimates.

2. Development of effective electronic countermeasures employment.

3. Development of penetration tactics.

4. Establishing and revising requirements for Strategic Weapon Systems.

5. Production of electronic intelligence reports which will include but not be limited to:

   a. Level of Activity Reports.
   b. Special Signal Reports.
   c. Unidentified Intercept Reports.
   d. Detailed Mission Review Reports.

(f) In accordance with established priorities and procedures, make available to all Unified and Specified Commands, Army, Navy, Air Force, and intelligence agencies, intelligence information derived from the SAMOS reconnaissance system.

(2) Air Force Intelligence Center (AFIC) will perform detailed exploitation of SAMOS products to:

(a) Produce detailed intelligence to support the Unified and Specified Commands.

(b) Produce estimates of military and economic capability.

(c) Produce special studies and reports on geographic areas, functional categories, and physical vulnerability.

(d) Produce special significance briefings.

(e) Maintain and update the Current Target Intelligence File.

(f) Maintain and update the Airplane and Seaplane Stations of the World. (ASSOTW).

(g) Review and evaluate Commanders Atomic Annexes.

(h) Generate Air Target Material Production Orders for new or revised priority target materials.

(i) Produce, maintain and update the Current Target Graphic Base (CTGB).

(j) Prepare detailed intelligence annotations for Air Target Materials.

(k) In accordance with established priorities and procedures, make available to all Unified and Specified Commands, Army, Navy, Air Force and intelligence agencies, intelligence information derived from the SAMOS reconnaissance system.

(3) Aerospace Technical Intelligence Center (ATIC) will:

(a) Produce photographic and electronic technical intelligence to support the Unified and Specified Commands.

(b) Prepare analyses of foreign equipment and components.

(c) Evaluate the photographic products and recommend quality control procedures.

(d) Evaluate ELINT products to determine capabilities and limitations of equipment and determine types and quantity of emitters.

(e) Provide technical support to the ECM and ECCM equipment development programs.

(f) In accordance with established priorities and procedures, make available to all Unified and Specified Commands, Army, Navy, Air Force, and intelligence agencies, intelligence information derived from the SAMOS reconnaissance system.

(4) The Aeronautical Chart and Information Center (ACIC) will:

(a) Provide photographic support to governmental agencies.

(b) Provide positional information for targets and other identifiable points in the Eurasian Land Mass to meet stated objectives.

(c) Produce special geodetic studies to satisfy national requirements.

(d) Produce new and revised Air Target Materials.

(e) Produce new and revised navigation charts and publications.

(f) Produce new and revised Air Facility Data.

(g) Provide related intelligence data as required such as Area Radar Prediction Analysis, Radar Return Code Annotations and special studies as assigned.

(h) In accordance with existing priorities and procedures, make available to all Unified and Specified Commands, Army, Navy, Air Force, and intelligence agencies, intelligence information derived from the SAMOS reconnaissance system.

[redacted]

2. Distribution:

The Data Processing Squadron will be responsible for the distribution of SAMOS products.

a. Distribution requirements of the National Intelligence Community will be in accordance with USIB instructions.

b. During the initial phase of operations distribution to Air Force organizations will consist of 9½ inch reconstituted film positives and other data in accordance with the following instructions.

(1) Strategic Air Command will receive one film positive of all usable exposures and associated data, and ELINT tapes with associated information.

(2) Air Force Intelligence Center (AFIC) will receive one film positive of each usable exposure with associated data.

(3) Aerospace Technical Intelligence Center (ATIC) will receive one film positive of each usable exposure, and ELINT data and tapes as required for evaluation and technical intelligence purposes.

(4) Aeronautical Chart and Information Center (ACIC) will receive one film positive of all usable exposures with orbital, attitude and vehicle time data.

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Appendix 1 to Section V - Direct Support of Military Forces

Appendix 2 to Section V - Intelligence Flow

Appendix 3 to Section V - SAC Intel. Flow Chart

Appendix 4 to Section V - AFIC Flow Chart

Appendix 5 to Section V - ATIC Flow Chart

Appendix 6 to Section V - ACIC Intel. Flow Chart

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Appendix 1 to Section V - Direct Support of Military Forces

Appendix 2 to Section V - Intelligence Flow

Appendix 3 to Section V - SAC Intel. Flow Chart

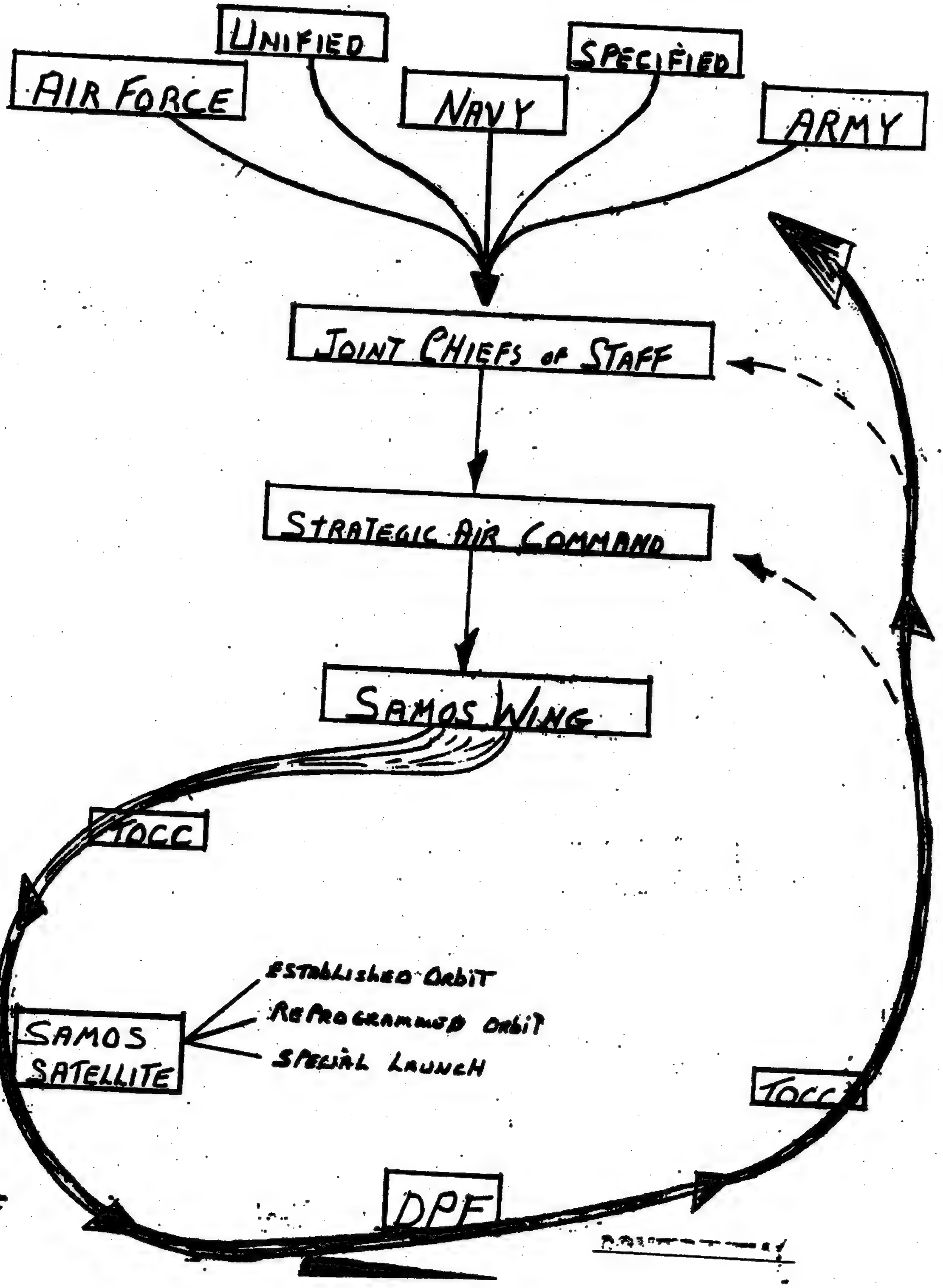
Appendix 4 to Section V - AFIC Flow Chart

Appendix 5 to Section V - ATIC Flow Chart

Appendix 6 to Section V - ACIC Intel. Flow Chart

DIRECT SUPPORT OF MILITARY FORCES

(FOR URGENT-UNANTICIPATED REQUIREMENTS)



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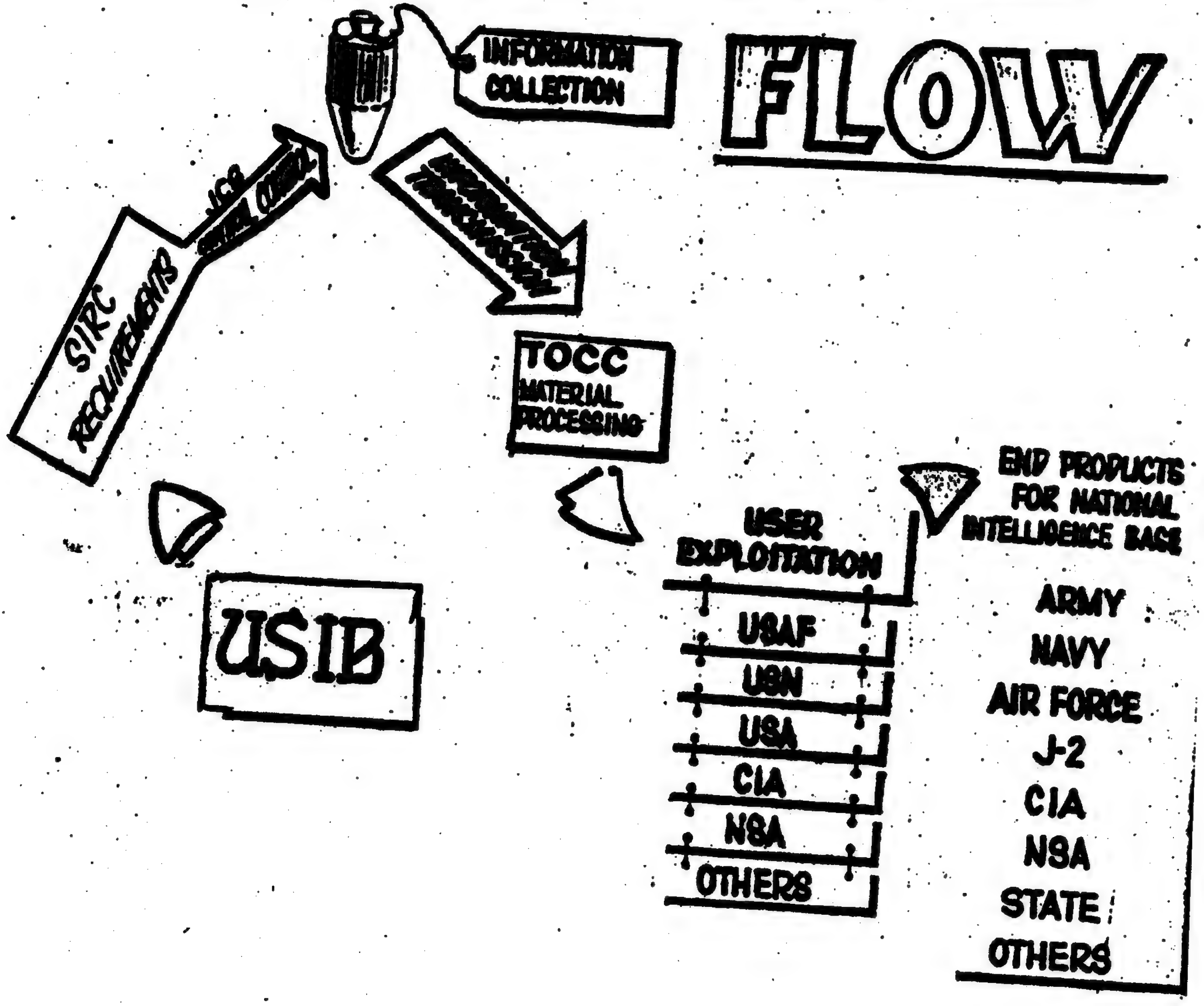
INTELLIGENCE FLOW



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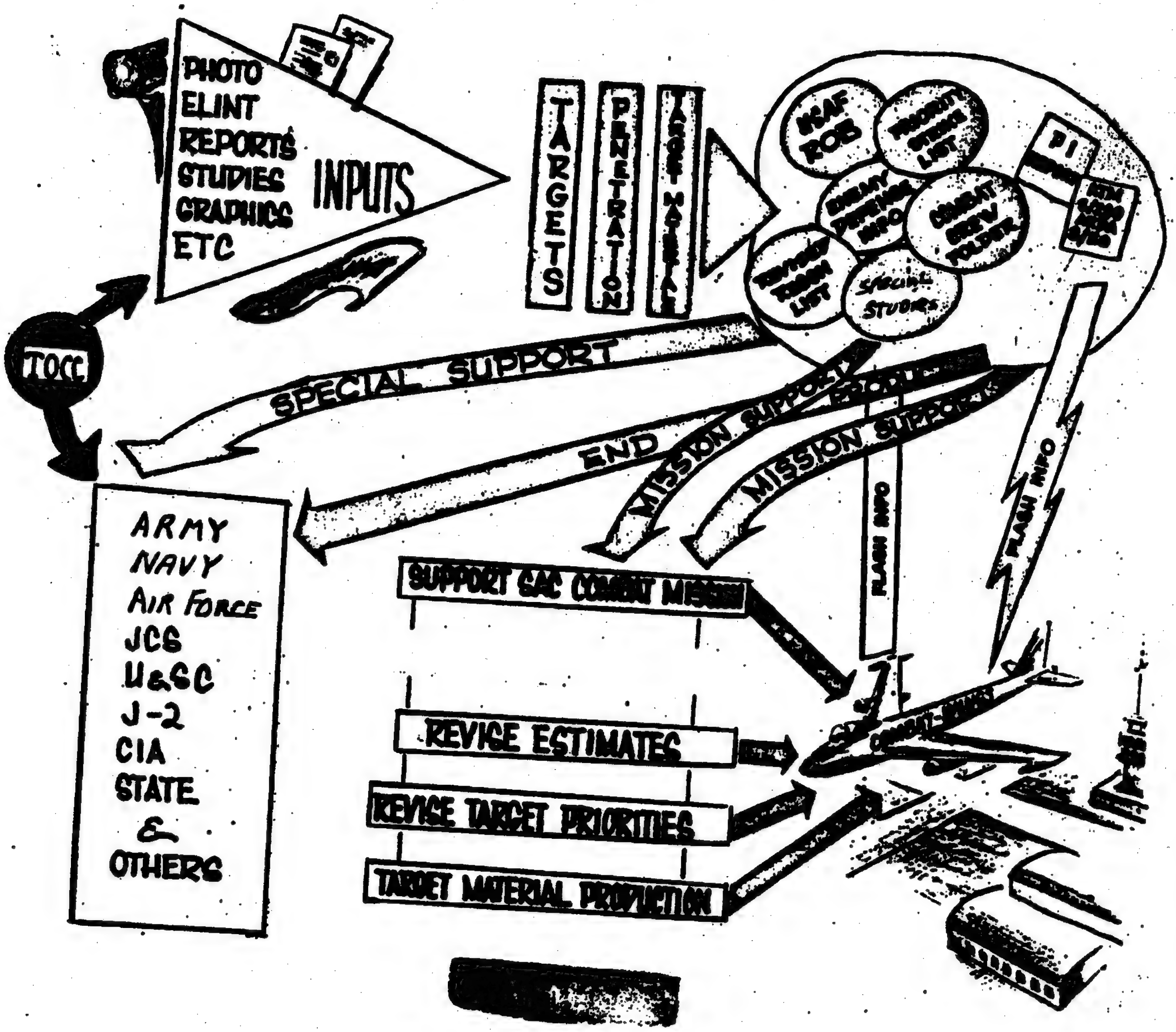
SAC INTEL. FLOW CHART



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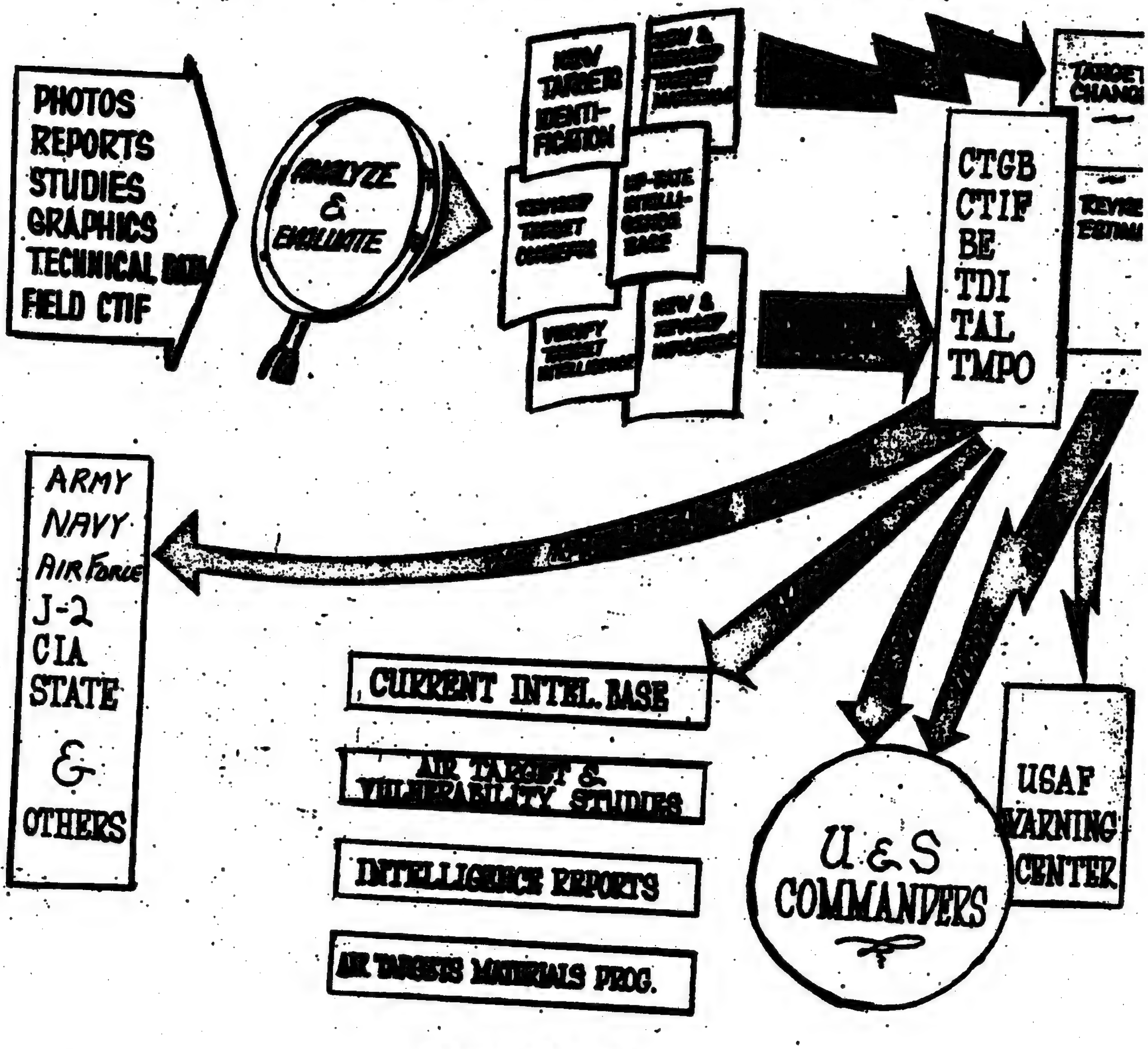
AFIC FLOW CHART



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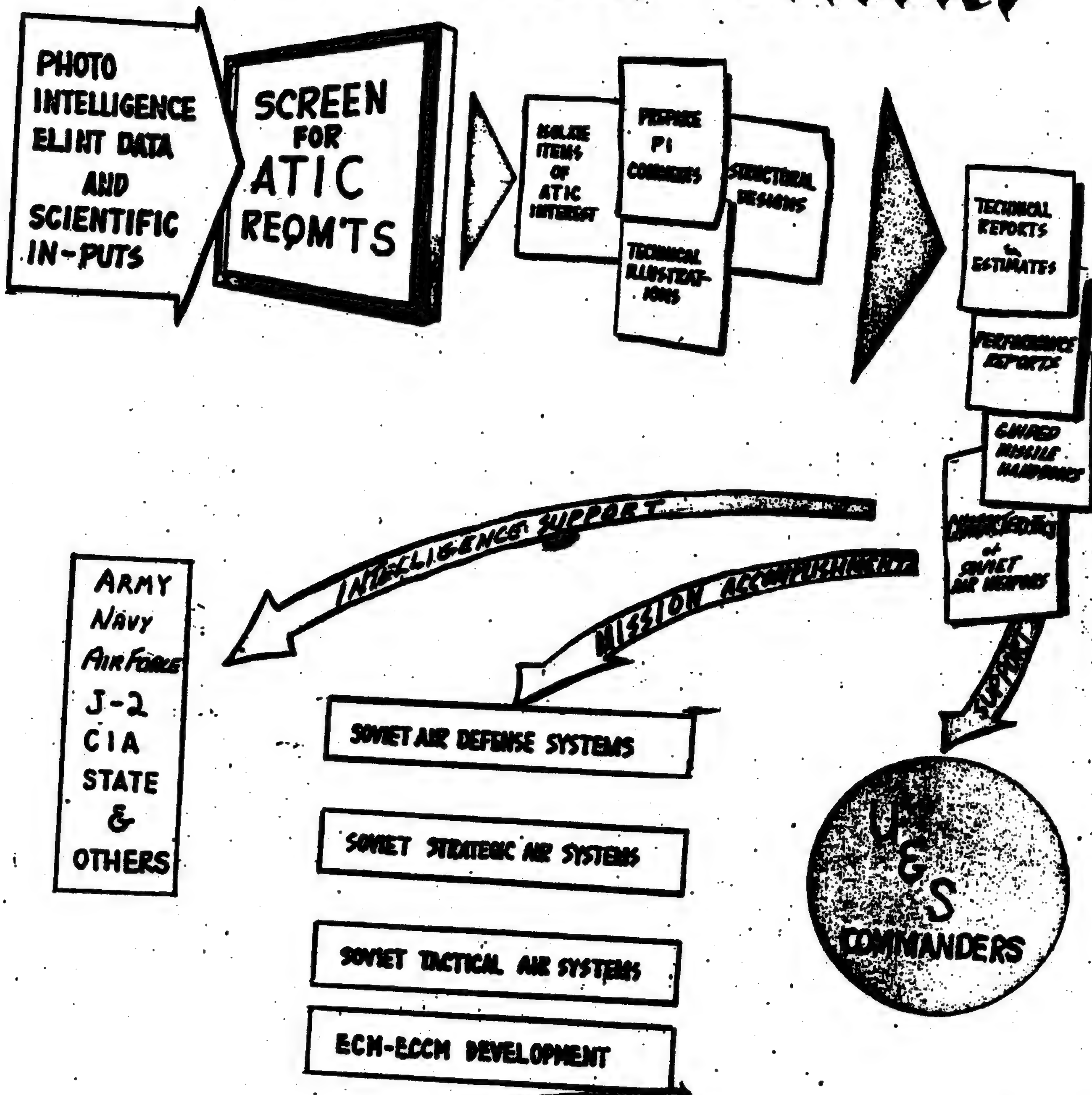

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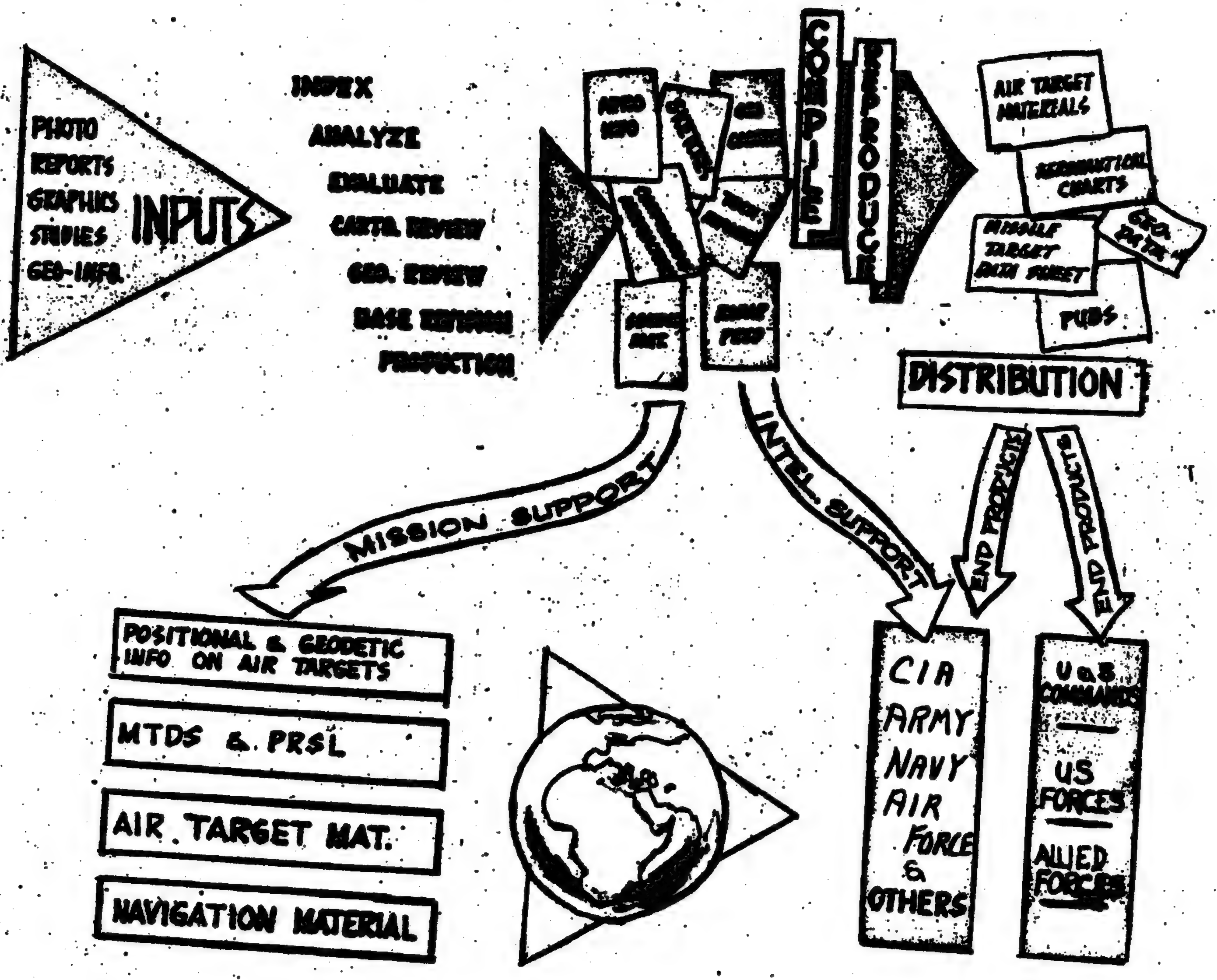

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SECTION VI. TRAINING

1. **General:**

The SAMOS operational capability will be developed through Air Force participation (AFR 80-14) in the R&D stages of the systems, and a training program. Training plans and programs will be based on the revised Personnel Training Concept developed for the SAMOS/MIDAS systems which was approved by Headquarters USAF, on 1 July 1959. This program will consist of cadre participation, supervisors and planners training, main complement training, and unit training. An Air Force Wing has been assigned responsibility to insure that adequate Air Force personnel have been trained to operate and maintain the facilities and equipment.

2. **Programs:**

a. Cadre Participation.

(1) All cadre participation will be accomplished in accordance with AFR 80-14 at the contractor facilities or at an Air Force site. This includes participation for command, key staff, technical personnel, support personnel, and all Air Training Command Field Training Detachment (FTD) personnel. These personnel (other than ATC) will be assigned to the designated Air Force wing.

(2) The cadre personnel will attain their skill by participation in the installation, check-out, and R&D tests of the systems equipment prior to the main complement training.

(3) A portion of this cadre will be engaged in the management training during the contractor's R&D effort. The bulk of the cadre technical personnel will participate with the contractors in the R&D program as a means of obtaining early experience in the operation and maintenance of the systems.

(4) The FTD cadre will include personnel authorized for the FTD's to support the training program.

b. Supervisors and Planners Training. This training will be accomplished in accordance with AFR 50-9.

c. Main Complement Training.

(1) This training will be accomplished by the assigned FTD and consists of individual and integrated training. It will provide the main body or complement of personnel through special training courses (AFR 50-9).

(2) Research and development, and operational equipment will be used to the maximum extent possible in conducting this training program. It will be the responsibility of the designated wing to integrate the training with the test activities in order to gain maximum utilization of all equipment and personnel.

(3) Individual Training. This training will provide technically trained specialists qualified to perform individual system tasks, and where required, to qualify personnel to enter integrated team training.

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(4) Integrated Training. This training will qualify individually trained specialists to perform team duties and tasks.

(5) Unit Training. This type of training will be the responsibility of the unit commander. He will be assisted in conducting this training by the assigned FTD. This training insures that initially qualified personnel maintain their proficiency at the highest possible level and will train for upgrading.

3. Training Equipment: R&D test, or operational equipment will be used to accomplish the training wherever possible. This imposes certain restrictions that must be recognized.

a. The scheduling of equipment for training must be given comparable consideration with R&D testing, procedure development, and other uses. Adequate training time is essential to develop the necessary skills.

b. Maximum use must be made of simulated inputs to provide dynamic operator training. The development of synthetic inputs during the R&D phase should be aimed at their use in training as well as in the test program.

c. Operater maintenance training (to the level of removing and replacing modules) should be accomplished by inserting faulty components, or correcting abnormal adjustment. An analysis must be made of each fault to assure that it will not result in permanent damage to the equipment.

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d. Detailed diagnosis, trouble shooting, and repair normally cannot be taught on the operational equipment without causing a degradation in reliability. Therefore, considerable training in the bench maintenance area must be conducted on specific items of equipment identified and provisioned as training parts. These parts will generally be "remove and replace" modules, or smaller items. The identification and provisioning of these parts is ARDC's responsibility, and must be accomplished in time to assure their delivery for main complement training.

e. After determining a desirable initial operational date, an estimated 20 to 24 months lead time is anticipated to complete the main complement personnel training.

4. Personnel. It is anticipated that the systems will require the use of both military and civilian personnel. Approximately 2550 people will be employed within the wing structures.

SECTION VII - FACILITIES

1. **General:**

Facilities and equipment utilized for Research and Development will be used whenever possible for operational purposes. Selection of facilities and equipment for such use will be made to avoid impairment to advanced research and development needs. Scheduling of range support and range time will be consolidated within the SAC mission and effort at Vandenberg AFB, and presented to the Pacific Missile Range as a composite SAC requirement. National priorities will be utilized as the basis for scheduling activities.

2. **Launch Complex:**

The launch facility will include the necessary launch stand(s) with flame deflectors, underpad instrumentation, and equipment space, service towers, fuel storage and transfer facilities, umbilical mast, utilities hardstands, operations building with controls and designed to protect personnel from blast or direct fall back of missile, and space for personnel training.

3. **Launch Squadron Maintenance Area:**

These facilities will provide space for the receipt, assembly, checkout and maintenance of the booster, satellite vehicle, payloads and their components and subsystems, including GSE. It will also provide space for operating, administrative, support, command personnel and training.

4. **Tracking and Acquisition Stations:**

Tracking and Acquisition stations are to be located in the Continental United States for tracking, command, and for acquisition of reconnaissance from the SAMOS payloads. A tracking and command station in Hawaii will be used primarily to serve the SAMOS recovery vehicle.

5. **Control and Data Processing:**

Space will be available in the Technical Operation Control Center and Data Processing Facility for mission planning, command control and operations, computations, correlation of data with the Tracking and Acquisition stations and data processing equipments. Space will also be available for operations and command personnel, and for training.

6. **Lead Times:**

Upon the establishment of an operational date the long lead time facilities will be given priority consideration. Representative times from contract award to fully operational status is as follows:

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a.	Technical Operations Control Center*	22 Months
b.	Data Processing Facility*	20 Months
c.	Launch Facility*	26 months
d.	Tracking and Acquisition Station*	22 Months

* Common SAMOS/MIDAS Facility

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